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வாய்நாடி வாய்ப்பச் செயல்

- Kural 948

Meaning:

The physician should diagnose the disease, trace its cause, consider how it may be alleviated, and then use his expert skill.

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First Wrapper
Pamban Beach

Second Wrapper
Pichavaram

Third Wrapper
Hogenakkal

Fourth Wrapper
Marina Beach

May Day, when the significant contribution of workers is proclaimed loud and clear

Labour Day is observed in India on May 1st every year to honour the contribution of the working class, labourers and tradesmen. May Day, as Labour Day is alternatively called, is observed as a National holiday in India in recognition of working men and women whose efforts form the very foundation of our social and economic progress. This day corresponds to International Workers' Day, which is a worldwide annual acknowledgment of working people in society.

International Workers' Day was first celebrated in 1886. There was an event in Chicago in the US, known as the Haymarket Affair. The Haymarket Affair was the beginning of a peaceful demonstration in support of workers' rights. Over the years following the Haymarket Affair, Socialist and Workers Rights' Groups decided that a day should be instituted to celebrate workers every year. The day chosen was May 1st, and from the beginning of the 20th century, this day was called International Workers' Day.

In India, the day was first celebrated in Chennai on 1st day of May in 1923, but now it is a nationwide day of celebration. In many countries, India included, the day is referred to as Labour Day. Here are a few reasons why it is of such significance to the population.

Labour Day is a day that brings workers together and reminds them of their power when they act in unison.

Labour Day is a day when workers can feel appreciated for the work they have done throughout the year.

This day can be an impetus for sharpening the efforts of workers to learn about their rights and to campaign and start movements to secure a better life for themselves and their families.

On Labour Day, we are reminded that the economy affects real men and women and is affected by it.

This day can invite workers to break down national barriers and support each other right across the world.

This day is also of significance because it enables workers to take much needed rest from their work and to collect their thoughts, spend time with their loved ones, or just recover their energies.

The day will motivate workers to work harder. This will help the economy grow and also encourage men and women to pursue their chosen careers, to do their best in them, and to contribute to society.

Labour Day celebrations in India can take many forms. Usually, there are pageants organised by trade unions and other workers' rights groups. Ordinary workers often join these pageants, with slogans and banners that represent their needs and assert their pride as workers.

Celebrations on this day also take the form of educating the next generation of workers. So, for example, there may be speeches in schools, or school children may be encouraged to take part in activities which get them thinking about the economy, labour and workers' rights.

At a lot of places, competitions are arranged for children and questions about Labour Day are asked. At other places, various people organize a lot of educational seminars in which people get to know about the importance of Labour Day and how the unity of labour can help them to battle any kind of situation.

The media publishes articles on the history and significance of Labour Day in India and worldwide. Celebrations may also take a more private and individual form. Groups of work colleagues may decide to celebrate by going out for a meal together or by having a small party in the workplace. As a result, this day also becomes an opportunity for workers to make friend and to get to know each other better, fostering a more positive workplace environment.

Labour Day is so very important in India. Make the most of this day by making it meaningful. Participate in the celebrations, educate yourself on your rights as a worker, make connections with other workers in a positive way, and take the opportunity to educate others about workers' rights and what workers need in the future. Labour Day is a day for celebrating the role of workers all across the world.

Tamil Nadu has 5.91 crore voters for 17th Lok Sabha election

India's 17th Lok Sabha Election is proposed to be conducted in 7 stages from April 11 to May 19, 2019.

FRANCHISE: In pre-Independence India, only those who paid taxes -- property and income tax – and *zamindars* enjoyed the right to vote. After Independence, all those who had completed 21 years of age were given the franchise. At present, the voting age has been brought down to 18.

There are 3 types of voters in India – (1) General Voters (2) Service Voters who are personnel like those in the army, working in other states and (3) Emigrant Indians who have not taken the citizenship of any foreign country.

A person can include his name in the voters' list of his constituency by producing his passport size photo, age certificate and proof of residential address.

BASIC QUALIFICATIONS TO CONTEST IN AN ELECTION: Though born in India, one who is not an Indian citizen can neither contest an election nor cast his/her vote. One should have completed 25 years of age for contesting an election. The person should also be a voter. That is, one who has not registered his/her name in the voters' list cannot contest an election. That, however, does not mean one can contest only from a constituency where one is a voter; one can contest from any constituency.

A candidate of a recognized national/ state party, while filing the nomination, should be proposed by a voter of the constituency from which the candidate seeks to contest. For Independent candidates, 10 persons of that particular constituency should propose candidature. The amount a candidate should deposit for the Lok Sabha election is Rs.25,000; for the Reserved constituency, the deposit amount is Rs.12,500. A candidate can contest from a maximum of two constituencies in an election.

IMPORTANCE OF LOK SABHA ELECTION: India is a democratic country under democratic rule. All political powers

to rule the country vest with the people in the Indian Republic. People exercise their political power through the vote. The significance of the Lok Sabha election is that citizens have the power to elect their representatives for running the Government on their behalf through exercise of their franchise.

Countries like Belgium, Australia, Czechoslovakia and Mexico have passed laws making voting mandatory for eligible voters. If non-voters fail to adduce valid reasons for not voting, they are fined or imprisoned.

THE FIRST LOK SABHA ELECTION: The first Lok Sabha election, after India attained independence and voting rights were conferred on all people 21 years of age and above, was conducted in several stages for about 5 months from 1951 till 1952. Candidates from over 20 parties staked their claims. About 10 crore people from all over the country exercised their franchise. With the victorious members, the first Lok Sabha was constituted and the late Jawaharlal Nehru became the first elected Prime Minister. Even before India became a Republic, it is to be noted, Jawaharlal Nehru was Prime Minister of India.

LOK SABHA ELECTIONS SO FAR: The second Lok Sabha election was held in 1957, the third in 1962, the fourth in 1967, the fifth in 1971, the sixth in 1977, the seventh in 1980, the eighth in 1984, the ninth in 1989, the tenth in 1991, the eleventh in 1996, the twelfth in 1998, the thirteenth in 1999, the fourteenth in 2004, the fifteenth in 2009, the sixteenth in 2014 and the present 17th for the 543 member Lok Sabha in April 2019 in 7 stages spread over from April 11 to May 19. More than 90 crore people throughout the country are to cast their votes in this election.

LOK SABHA ELECTION IN TAMIL NADU: The total number of Lok Sabha constituencies in Tamil Nadu is 39, comprising 32 general and 7 reserved constituencies. The total number of voters in Tamil Nadu is 5.91 crore – 2.92 crore male, 2.98 crore female and 5,472 transgenders. The Polling was completed on 18.4.2019, except for one constituency. According to the Election Commission, 71.90 per cent of voters exercited their franchise. Counting of votes will take place on May 23 throughout India and the 17th Lok Sabha of Independent India will be constituted.

Agroforestry

Agroforestry is any sustainable land-use system that maintains or increases total yields by combining food crops (annuals) with tree crops (perennials) and/or livestock on the same unit of land, either alternately or at the same time, using management practices that suit the social and cultural characteristics of the local people and the economic and eco-logical conditions of the area.

2) Agroforestry is a collective name for a land-use system and technology whereby woody perennials are deliberately used on the same land management unit as agricultural crops and/or animals in some form of spatial arrangement or temporal sequence. In an agroforestry system there are both ecological and economical interactions between the various components.

DIFFERENT TERMINOLOGIES FOR DESCRIBING TREE CULTIVATION IN NON-FOREST AREAS

1) Farm Forestry: Farm forestry is the name given to programmes which promote commercial tree growing by farmers on their own land. Farm forestry was defined by NCA (1976) as the practice of forestry in all its aspects in and the around the farms or village lands integrated with other farm operations.

2) Extension Forestry: It is the practice of forestry in areas devoid of tree growth and other vegetation situated in places away from the conventional forest areas with the object of increasing the area under tree growth. It includes the following:

a) Mixed forestry

It is the practice of forestry for raising fodder grass with scattered fodder trees, fruit trees and fuel wood trees on suitable wastelands, panchayat lands and village commons.

b) Shelterbelts

Shelterbelt is defined as a belt of trees and or shrubs maintained for the purpose of shelter from wind, sun, snow drift, etc.

c) Linear Strip plantations

These are the plantations of fast growing species on linear strips of land.

3) Rehabilitation of Degraded forests: The degraded area under forests needs immediate attention for ecological restoration and for meeting the socio - economic needs of the communities living in and around such areas.

4) Recreation Forestry: It is the practice of forestry with the object of raising flowering trees and shrubs mainly to serve as recreation forests for the urban and rural population. This type of forestry is also known as Aesthetic forestry which is defined as the practice of forestry with the object of developing or maintaining a forest of high scenic value.

TYPES OF AGROFORESTRY SYSTEMS

1. STRUCTURAL BASIS :

A. NATURE OF COMPONENTS

I) AGRISILVICULTURAL SYSTEMS

In this system, agricultural crops are intercropped with tree crops in the interspace

between the trees. Under this system agricultural crops can be grown upto two years under protective irrigated condition and under rainfed farming upto four years. The crops can be grown profitably upto the above said period beyond which it is uneconomical to grow grain crops. However fodder crops, shade loving crops and shallow rooted crops can be grown economically. Wider spacing is adopted without sacrificing tree population for easy cultural operation and to get more sunlight to the intercrop. Performance of the tree crops is better in this system when compared to monoculture.

II) SILVOPASTORAL SYSTEMS

The production of woody plants combined with pasture is referred to as Silvipasture system. The trees and shrubs may be used primarily to produce fodder for livestock or they may be grown for timber, fuelwood, fruit or to improve the soil.

This system is classified into three categories:-

a) Protein bank:

In this Silvipastoral system, various multipurpose trees (protein rich trees) are planted in or around farmlands and range lands for cut and carry fodder production to meet the feed requirement of livestock during the fodder deficit period in winter.

Example: Acacia nilotica, Albizia lebbeck, Azadirachta indica, Leucaena leucocephala, Gliricidia sepium, Sesbania grandiflora.

b) Livefence of fodder trees and hedges:

In this system, various fodder trees and hedges are planted as live fence to protect the property from stray animals or other biotic influences.

Example: Gliricidia sepium, Sesbania grandiflora, Erythrina sp, Acacia sp.

c) Trees and shrubs on pasture:

In this system, various tree and shrub species are scattered irregularly or arranged according to some systemic pattern to supplement forage production.

Example: Acacia nilotica, Acacia leucophloea, Tamarindus indica, Azadirachta indica.

III) AGROSILVOPASTORAL SYSTEMS

The production of woody perennials combined with annuals and pastures is referred Agrisilvopastural system.

This system is grouped into two categories.

a) Home gardens

b) Woody hedgerows for browse, mulch, green manure and soil conservation

a) Home gardens

This system is found extensively in high rainfall areas in tropical South and South east Asia. This practice finds expression in the states of Kerala and Tamil Nadu with humid tropical climates where coconut is the main crop. Many species of trees, bushes , vegetables and other herbaceous plants are grown in dense and in random or spatial and temporal arrangements. Most home gardens also support a variety of animals. Fodder grass and legumes are also grown to meet the fodder requirement of cattle. In India, every homestead has around 0.20 to 0.50 ha land for personal production.

Home gardens represent land use systems involving deliberate management of multipurpose trees and shrubs in intimate association with annual and perennial agricultural crops and livestock within the compounds of individual houses. The whole tree- crop- animal units are being intensively managed by family labour. Home gardens can also be called as Multitier system or Multitier cropping.

Home gardens are highly productive, sustainable and very practicable. Food production is primary function of most home gardens.

Structure of Home Gardens:

Home gardens are characterized by high species diversity and usually 3-4 vertical canopy strata. The layered configuration and compatible species admixture are the most conspicuous characteristics of all home gardens. Generally all home gardens consist of an herbaceous layer near the ground, a tree layer at the upper levels and an intermediate layer. The lower layer can be partitioned into two, the lowermost being at less than 1.0m in height, dominated by different vegetables and the second layer of 1.0 -3.0/m height comprising food crops such as banana, papaya and so on. The upper tree layer can also be divided into two, consisting of emergent , full grown timber and fruit trees occupying the upper most layer of 25m height and medium size trees of 10-20m occupying the next lower layer. The intermediate layer of 5-10m height is dominated by various fruit trees.

Choice of species:

a) Woody species: Anacardium occidentale,Artocarpus heterophyllus, Citrus spp, Psiduim guajava, Mangifera indica, Azadirachta indica, Cocus nucifera,

b) Herbaceous species: Bhendi, Onion, cabbage, Pumpkin, Sweet potato, Banana, Beans, etc.

b) Woody Hedge rows:

In this system various woody hedges, especially fast growing and coppicing fodder

shrubs and trees are planted for the purpose of browse, mulch, green manure, soil conservation etc. The following species viz., Erythrina sp, Leucaena luecocephala, Sesbania grandiflora are generally used.

IV) OTHER SYSTEMS

a) Apiculture with trees: In this system various honey (nectar) producing trees frequently visited by honeybees are planted on the boundary of the agricultural fields

b) Aqua forestry: In this system various trees and shrubs preferred by fish are planted on the boundary and around fish ponds. Tree leaves are used as feed for fish. The main role of this system is fish production and bund stabilization around fish ponds

c) Mixed wood lots: In this system, special location specific Multi-Purpose Trees (MPTs) are grown mixed or separately planted for various purposes such as wood, fodder, soil conservation, soil reclamation etc.

B.ARRANGEMENT OF COMPONENTS

I) Spatial arrangement

II) Temporal arrangement

a) Spatial Arrangement: Spatial arrangement of plants in an agroforestry mixture may result in dense mixed stands (as in home gardens) or in sparse mixed stands (as in most systems of trees in pastures).

b) Temporal Arrangement: Temporal arrangements of plants in Agroforestry may also take various forms. An extreme example is the conventional shifting cultivation cycles involving 2-4 years of cropping and more than 15 years of fallow cycle, when a selected woody species or mixtures of species may be planted. Similarly, some silvipastoral systems may involve grass leys in rotation with some species of grass remaining on the land for several years. These temporal arrangement of components in agroforestry are termed coincident, concomitant, overlapping, separate and interpolated.

2. FUNCTIONAL BASIS

All agroforestry systems have two functions.

A) Productive functions

The Productive functions are:

I) Food

II) Fodder

III) Fuel wood

IV) Clothes

V) Shelter

VI) NTFPs

B) Protective functions

The Protective functions are:

i) Wind breaks

II) Shelter belts

III) Soil conservation

IV) Soil improvement

3. SOCIO-ECONOMIC CLASSIFICATION

Based on socioeconomic criteria as scale of production and level of technology input and management, agroforestry systems have been grouped in to three categories.

A) Commercial AF systems:

The term commercial is used whenever the scale of the production of the output is the major aim of the system.

Examples:

a) Commercial production of plantation crops such as rubber, oil palm and coconut with permanent underplanting of food crops, pastures

b) Commercial production shade tolerating plantation crops such as coffee, tea and cocoa under overstorey of shade trees

B) Intermediate AF systems:

Intermediate systems are those between commercial and subsistence scale of production and management.

Examples:

Production of perennial cash crops and subsistence food crops undertaken on farms wherein the cash crops fulfill the cash needs and the food crops meet the family's food needs.

C) Subsistence AF systems:

Subsistence AF systems are those wherein the use of land is directed towards satisfying basic needs and is managed mostly by the owner and his family.

4. ECOLOGICAL CLASSIFICATION

A) Humid / sub humid

B) Semi arid / arid

C) Highlands

A) Agroforestry systems in Humid / Subhumid lowlands Examples:

Home gardens, Trees on range lands and pastures, improved fallow in shifting cultivation and Multipurpose woodlots.

B) Agroforestry systems in Semiarid and arid lands Examples:

Various forms of silvopastoral systems, wind breaks and shelter belts.

C) Agroforestry systems in Tropical High lands Examples:

Production systems involving plantation crops such as coffee, tea, use of woody perennials in soil conservation and improved fallow.

BENEFITS OF AGROFORESTRY SYSTEM

A) Environmental benefits

i) Reduction of pressure on natural forests.

ii More efficient recycling of nutrients by deep rooted trees on the site

iii) Better protection of ecological systems

iv) Reduction of surface run-off, nutrient leaching and soil erosion through impeding effect of tree roots and stems on these processes

v) Improvement of microclimate, such as lowering of soil surface temperature and reduction of evaporation of soil moisture through a combination of mulching and shading

vi) Increment in soil nutrients through addition and decomposition of litter fall.

vii) Improvement of soil structure through the constant addition of organic matter from decomposed litter.

B) Economic benefits

i) Increment in an outputs of food, fuel wood, fodder, fertiliser and timber;

ii) Reduction in incidence of total crop failure, which is common to single cropping or monoculture systems

iii) Increase in levels of farm income due to improved and sustained productivity

C) Social benefits

i) Improvement in rural living standards from sustained employment and higher income

ii) Improvement in nutrition and health due to increased quality and diversity of food outputs

iii) Stabilization and improvement of communities through elimination of the need to shift sites of farm activities.

Courtesy: TNSU Agritechportal Forestry

PLANETS

* The volume of the earth's moon is the same as the volume of the Pacific ocean.

* The planets of the Solar System can be divided into categories based on their composition, viz. Terrestrials, Giant Planets, Gas Giants, Ice Giants.

* Earth is the only planet not named for a Roman God.

* At 60 degrees South latitude, you can sail completely around the world.

* Most meteors and meteoroids or no bigger than a pea.

* Mercury has the fastest orbit of any planet in the solar system completing one revolution around the sun in 88 days.

* The surface gravity of Jupiter is 2.6 times greater than that of Earth. A person weighing 170 pounds (77 kg) would tip scales at 442 pound (200 kg) on Jupiter.

* Seventy-one percent of Earth's surface is covered in water.

* Earth is the only planet where water exists in liquid form at the surface.

HEALTH FROM NATURE – Aromatherapy

Garlic:

Garlic has antispasmodic, fungicidal, and viricidal properties. In addition, it is a powerful antiseptic, and destroys parasites and worms in the digestive tract.

It is used for treating muscle spasms, arthritis, respiratory tract problems such as bronchitis and colds, as well as acne, stings, and sores.

Because of its exceptionally strong odor, garlic oil is problematic as far as blending with other oils is concerned.

Ginger:

Ginger has warming and stimulating properties. It is also considered to be an aphrodisiac.

It is used for treating respiratory tract infections, arthritis and muscle pains.

Ginger blends well with myrtle, coriander, patchouli and vetiver.

Jasmine:

Jasmine is considered to be the most effective aphrodisiac of all the essential oils. It has, in addition, antispasmodic, relaxing, and warming properties, and it speeds up the regeneration of the epidermal (skin) cells.

It is used for treating frigidity, anxiety, depression, muscle pains, respiratory tract problems such as colds and asthma, as well as skin conditions, including dry, sensitive skin, irritated skin, dermatitis and wrinkles.

Jasmine blends well with most essential oils, especially citrus oils, rose, sandalwood, palmarosa and geranium.

Lemon:

Lemon is a powerful antiseptic and has viricidal, fungicidal and stimulating properties.

It is used for treating respiratory tract problems (bronchitis, colds), arthritis, cellulite, oral herpes, acne, greasy skin, psoriasis, scaly skin and stings.

Lemon combines well with most essential oils, especially geranium, chamomile and neroli.

Orange:

Orange has antispasmodic, viricidal, calming and warming properties.

It is used for treating tension, depression, respiratory tract problems such as bronchitis and colds, muscle pains, dry, sensitive skin, acne, aging skin, stretch marks and dermatitis.

Orange blends well with most essential oils, especially clary sage, coriander, geranium, rose and vetiver.

Grapefruit:

Grapefruit has stimulating properties; it assists in dissolving cellulite and eliminating liquids.

It is used for treating accumulated liquids and swelling, cellulite, greasy skin and acne.

Grapefruit blends well with other citrus oils, geranium, cedarwood, lavender and coriander.

Source: Health from Nature

HOW TO GROW FRESH AIR

What we can do as a community to clean our air

Today Governments and citizens around the world recognize the dangers of air pollution. To improve the air quality, we have to improve the existing public transport system, make the cities more pedestrian-friendly and encourage citizens to use healthier and eco-friendly options like cycling to work. But these changes cannot be effected without community support or by getting involved yourself.

Resident Welfare Associations are a good place to start

• Encourage the people in your locality to keep the colony clean and dust-free. Get the association to ensure water is routinely sprayed in the area.

• Plant trees wherever possible. This will not only make the neighbourhood green but will also make the air you breathe cleaner.

• During festivals such as Diwali and Holi, when fireworks lead to a sharp drop in air quality every year, encourage your neighbours

to celebrate together in the colony rather than only with their families. This will mean fewer fireworks, and less pollution.

Schools can also play a big role

Every city in India has thousands of schools. Each school, in turn, has access to hundreds of children who belong to families of four to five people on an average. Information and education imparted to school children about the dangers of air pollution will not only just make children environment - conscious but they will also return home and pass on these learnings to their parents and relatives.

Green initiatives such as pointing out the hazards of plastic and encouraging parents and children to use school buses and carpools rather than their personal vehicles are simple yet effective means that can be employed.

Offices

Offices around the world and even in India are far more aware and conscious of their carbon footprint. Some organizations are taking the eco-friendly route by going paper-free, planting trees on their premises, using plants to decorate interiors and limiting the use of plastic.

- Start-ups or workplaces with fewer employees even have the option today of using co-working spaces that have come up in India's metros.

- Installing solar panels to power workplaces.

- Installing waste management mechanism is a simple way of doing the environment a big favour.

Homes and lifestyle

- Install solar panels on the roof - these can power your entire house.

- Keep your home green and remove all toxic material wherever possible.

- It is important to segregate the organic waste as this can be converted to manure. Food waste can also be used to produce vermimanure. If you find this difficult to do by yourself at home, rope in the Welfare Associations of your locality and encourage them to start a community waste disposal system.

- If you are driving, avoid speeding in heavy traffic and suddenly braking or accelerating as this increases emission.

- Cut down the use of plastic in your daily life. Some plastic materials take as long as 1000 years to degrade.

- Reuse and recycle wherever possible. Even a small step like using the same plastic bag when you go out to buy vegetables will make a difference. Even better, opt for environment-friendly material like cloth bags next time you head to the market.

- With most of us now depending on online shopping applications, return the cardboard boxes your groceries are packed in, so they can be used again for other customers.

- Seeing night guards trying to keep themselves warm around a bonfire is a familiar sight during winters. The burning of twigs leaves and paper contributes to making the area around difficult to breathe. Donate your old winter clothes to your neighbourhood guards.

This will keep them warm and possibly prevent them from burning fires.

• Make sure your garbage is being disposed of in the proper manner and is not being burnt. Encourage your neighbours to follow your example.

Become digital pollution warriors

As citizens of the country we have the right to clean air, the right to ask the Government to take action on the severe air quality. Globally, social media has changed the way people communicate with their Governments. India is no different. Online campaigns have effectively brought issues of importance to the forefront. Asking for clean air shouldn't be any different.

We spend a lot of time on the Internet. We can use some of that time to fight for better air. Tweet about your concerns on air quality and get your friends to do the same. Spread the word on Facebook as well. Rather than just complain about it, we can also share solutions to improve air quality. Online forums are a great way to attract attention, whether by starting an online petition or by writing a letter to your Government.

Some of the issues that you can champion online as citizens are:

Limit burning of crop residue: This is one of the biggest reasons why, especially in North India, the air quality drops to dangerous levels during winter. Start a campaign to appeal to State Governments to find a solution to this problem.

Ensure last-mile transportation to metro stations: Even in cities like Delhi which is connected by an exhaustive metro service, commuters continue to use their cars, sometimes just to get to the metro stations. This is largely due to insufficient public transport connectivity. Emphasise on safe and efficient neighborhood-to-metro connectivity. This will lead to lesser dependence on personal vehicles.

Cleaner, greener roads: Post suggestions about making your city greener. This can be done simply by planting trees, wherever possible, in your city. Spraying city streets with water at night is one of the simplest ways of reducing the dust that we are forced to breathe every day. Appeal to your local Governments to do this regularly. In the past, newspaper campaigns such as the recent movement to stop the felling of 1,400 trees in Delhi have led the authorities to take notice.

Curb industrial pollution: Emission from factories and power plants in one of the biggest causes of air pollution. Suggest ways of curbing it by implementing better technologies in industrial plants, finding more eco-friendly ways of managing resources and installing proper waste management techniques.

Coal-powered factories remain one of the biggest concerns. Urge the Government to find an alternative to them. Sensitizing workers in these units and incentivizing them to conserve resources, such as switching off lights and fans when not in use, will also help in the long run.

Vehicular pollution: While cities like Delhi have banned old diesel cars, it

is often hard to check whether the ban is actually in place. Furthermore, the ban has not been implemented across the country. The Government may encourage phasing out diesel vehicles in other parts of the country as well.

Suggest stringent measures: Sometimes the fear of punishment can actually help us become more responsible citizens. The reason most of us wear seat belts is not because we are concerned about our safety but because we worry we may be fined by the traffic police for not wearing one! The Government have to play the role of disciplinarian, wherever required. The price we pay for our errant ways may actually end up saving our lungs and lives. Government may impose heavier fines on polluting vehicles and deny fuel to cars and two-wheelers without PUC certification.

Locally elected leaders may conduct spot checks in residential areas: Local body members should be encouraged to run random checks to ensure garbage is being disposed of properly. Slap a fine on households that are not complying. Take strict action against stubble burning and discourage people from burning waste matter. Similarly, make suggestions to your leaders to reward those who are making a difference, say, by powering their houses and factories with solar panels and using effective waste management techniques.

Plant saplings and look after them: It is said that when old people start planting trees and looking after them, knowing that they will not benefit from its shade or air quality benefits, society has become learned. Do not allow unscrupulous cutting of trees.

Source: ***How to Grow Fresh Air***
by Kamal Meattle & Barun Aggarwal

- Maintain personal hygiene and public hygiene.
- To quench thirst, you can take coconut water. Fruits will also help quench thirst. But all fruits should be washed and peeled personally with clean hands.
- If you are overweight, lose weight slowly and sensibly. Eat less. Overeating puts stress on the gallbladder.
- If you are about to undergo a surgery, ask your doctor about donating some of your own blood beforehand. If necessary, this blood can be transfused back to you during surgery.
- Honey is the only sweetener that is allowed while treating obesity, but it should be original honey, directly collected from honeycombs.

Sound Sleep

Sleep is an indispensible thing to a man. In this world every animal sleeps for varied duration. A Giraffe takes more or less 2 hours per day, but Bats take 20 hours of sleep per day.

In this modern world, due to busy schedules and job tension, most of the people sacrifice their good night sleep. A survey, notes the duration of sleep for a man comes down by an hour per day as compared to that of 30 years ago. Even though, he may get desired results forfeiting his sleep, subconsciously he is losing the benefits that sleep offers to him.

Many people will rather ask, “what can a normal sleep provide?” and some are in the mindset that, to be successful, one must stop dreaming in the sleep and must carry out hard-work with limited sleep. This point of view is erroneous, because sleep makes the mind fresh by driving out the stress. So, naturally people who sleep 8 hours per day are more socially active and have great concentration than their counterparts. Also, most of the hormones for growth, muscle or tissue repair, sexual arousal are generated during the sleep. Therefore, for children the sleep is very essential as, it is during the young age excessive growth hormones are secreted. And during this stage, if the child loses sleep for the sake of better grades in exams, naturally it affects the overall growth and makes them dull with less energy.

In addition to that, people who are hospitalised, recovering from illness and sportspersons who made their muscles fatigue by intense workout are recommended to take ample amount of sleep. Because, sleep speeds up one’s recovery process and boosts one’s immunity. This is the reason why people who sleep less than 6 hours per day will often be prone to common cold and other illnesses. Also a hard-working sportsman will not be able to better his performance, as his muscles are not restored to the peak capacity. It is in the sleep, the body shutdowns all other functions and dominantly focuses on to bring down the body to an equilibrium state.

Moreover, the duration of the sleep is directly proportional to a production of hormone called “Testosterone”. This hormone plays a vital role in reproduction, developing male

sexual characteristics like beard, hair growth and muscle growth. Unfortunately, due to busy lifestyle and night shift work, this hormone levels in these individuals tend to be lower than those in our earlier generations. This has paved a way for rise in the fertility clinic, hair transplantation, obesity, etc. On comparison to the past, more people are becoming impotent nowadays, is a bitter truth. Even though there are many reasons like stress, lack of physical exercise, etc., - lack of sleep and nocturnal behaviors is the key factor for this.

On the bottom-line, one must take care of themselves and avoid spending lakhs of rupees in undergoing treatment by having adequate amount of sleep daily. Therefore, normal people, office goers must get at least 7 hours deep sleep per day and people recovering from illness and sports persons must sleep for more than 8 to 8½ hours per day for speedy recovery and enhanced performance. Also, children should not be forced to stay awake till long hours in the night and study, instead they can be taught to manage their time properly and allocate time for studies during the day and in the evenings. Ultimately, "When sleep is sound, Health and Happiness abound".

- Hariharan K

Holiday Homework

- Allow your child to play outdoors, get hurt and get dirty. It's okay for them to fall down and experience pain once in a while. Comfortable life within the sofa cushions will make your child lazy.
- Allow them to adopt a pet dog or a cat or any animal, bird or fish.
- Teach them a few folk songs.
- Get some story books with colourful pictures for your kids.
- Keep your children away from TV, Mobile phones, Computers and other electronic gadgets; they have their whole life for that.
- Guide them to participate in voluntary works in orphanage or oldage homes.
- Introduce them natural food and traditional food.
- Make them to go to sleep early and wakeup early.

Let us respect traffic rules and save valuable lives!

The much respected Avvaiyar held that a human birth is a rare blessing; still rarer is to be born free of disabilities like humped back, blindness and deafness.

When it is so, many invaluable lives are plucked away due to non-observance of traffic regulations, carelessness and blind action. The tragedy is that the lives of even those who scrupulously follow rules are lost due to this.

Even if it were not for oneself, one should follow traffic rules out of consideration for the members of one's family or for the welfare of other vehicle users. Taking such a responsibility is also a great public service rendered by a citizen to the society in which he or she lives.

Members of the public generally use road transport for commuting between home and office and for other purposes. Most of them use either two wheelers or four wheelers for their travel. The rest resort to trains and metro rail services depending on their need. Traffic congestion has become the order of the day in most of the cities in the world. The burgeoning human and vehicle population is the main reason for this state of affairs.

As per the World Health Organization report, over 10 lakh people die every year all over the world due to road accidents. As per the report released by the WHO in 2004, every year 12 lakh people lose their lives in accidents and about 5 crore people suffer injuries. Road accident is the major cause for the death of children in the 10 to 19 age group.

Today's youth, especially those in the age group of 15 to 30, choose their dresses and ornaments as well as mobile phones and two and four wheelers, according to the latest trends. As part of their work, they drive heavy motor vehicles, school buses, lorries and containers. Nearly 90 per cent of the youth today ride two wheelers. They blindly and irresponsibly operate these vehicles at high speed.

Youths, who are to develop the future India into a super power should follow traffic rules. They wear cooling glasses and gloves while riding vehicles and also use headsets for talking to their friends over the phone or for hearing

music of their choice. Seldom do they think of wearing helmets, which is essential during driving. This is the attitude of most of the present-day youth.

The youth ride vehicles at break-neck speed. Such youth and members of the public like them should realize that they alone are not using the road. Women, aged people, sons accompanying their aged mothers, mothers taking home their wards from school and those escorting their aged parents, also use the roads . If other road users were to falter and fall on the road due to your demonic speeding of your vehicle, they may simply be run over by the bus, lorry or container coming behind them. Because of the bungling by a few, because of their lack of respect for traffic rules and non adherence to them, the precious lives of others may be fatally lost.

We should invariably follow traffic rules when we are on the road. We should operate vehicles safely. We should be conscious of the fact that we alone are not using the roads. Others are also operating their vehicles, either behind us, or in the front, or to our right and left. We should think of their safety also. We should realize that just as our lives are important to our family members, the lives of our fellow travellers are precious to their families. Through our mistakes and slackness on the road and our non-observance of traffic rules, if we put the lives of other members of our society in danger, we would be inflicting a terrible brutality on society.

Internationally, road accidents and prevention of injuries due to accidents are the major issues. The problem is a devastating one as accidents leave healthy and fully functional persons as cripples.

The main reasons for accidents are speeding, breaching lane discipline by criss-crossing the two wheeler and four wheeler tracks at will without following traffic rules, sudden failure of brake and steering wheel of the vehicles, and negligence and fatigue of drivers.

ROAD ACCIDENTS IN TAMIL NADU

Accidents and loss of lives in Tamil Nadu between the year 2000 and 2019 (February):

During the period, 2,47,768 people have died in 11,59,311 accidents. Another 13,19,336 persons were injured in the accident.

Before operating our vehicles such as two wheelers, four wheelers, autos , heavy vehicles, school buses, lorries or containers , we should check whether the vehicle brakes are in good condition or they need repair. We should drive the vehicles carefully, obey traffic signals and stick to tracks allotted to the respective vehicles. When we turn a corner, we should indicate it to fellow travelers in advance either by using indicators or through hand signal.

As per Road Rules obtaining in India, one should not overtake vehicles from the left. If one wants to overtake vehicles from the left, then one should take note of the speed of vehicles moving ahead and from behind. One should give proper horn before overtaking other

vehicles from the left side. One should give proper signal to fellow travellers whenever one overtakes their vehicles. One should signal to the vehicles coming from the opposite direction by switching on and off the headlights of their vehicles.

Riders should avoid listening to music and talking to others with their cell phone inside the helmet. Some people operate vehicles at a slow speed. Such vehicles should stick to left end of the road. If they operate their vehicles at a slow speed in the middle of the road, then they are likely to be hit by vehicles coming from behind, which they should avoid. Those who ride gearless vehicles such as Moped or Scooters operate at a high speed ignoring pedestrians crossing the roads. This is dangerous and should be avoided. Similarly, one should avoid riding two wheelers in between two four wheelers like cars and buses. Four wheelers normally move one behind the other and if a two wheeler runs in between them, it may get wedged between the vehicles and suffer an accident. The four wheelers too may suffer an accident. One should avoid applying brake suddenly while operating vehicles at high speed as this may lead to skidding of the vehicles. So one should reduce the speed before applying the brakes. Similarly one should check the pressure of tyres atleast once a week . Parents should educate their children on the necessity of wearing helmets.

Today's younger generation and public should follow traffic rules as mentioned above, consider the lives of others as their own, operate their vehicles in a proper manner and create an accident-free Tamil Nadu. "Let us do a service to society by observing traffic rules and save ourselves and fellow human lives".

Winner of Nobel Prize for Peace

Nelson Mandela

Nelson Mandela's full name is Nelson Rolihlahla Mandela. He is the first South African black Nationalist and Statesman whose long imprisonment (1962-1990) and subsequent ascension to the presidency (1994) symbolized the aspirations of South African's black majority. He led the country until 1999.

He was the son of Chief Henry Mandela of the Xhosa-speaking Tembu people. Mandela renounced his claim to the chieftainship to become a lawyer. He attended the University College of Fort Hare and studied law at the University of Witwatersrand. He later passed the qualification exam to become a lawyer and in 1952, opened a firm with Oliver Tambo.

In 1944, Mandela joined the *African National Congress (ANC)*, a black-liberation group, and in 1949, became one of its leaders, helping to revitalize the organistion opposing the apartheid policies of the ruling National Party. Mandela went on trial for treason in 1956-1961, but was acquitted.

After the massacre of unarmed Africans by police forces at Sharpeville in 1960 and the subsequent banning of the ANC, Mandela abandoned his non-violent stance and began advocating acts of sabotage against the South African regime. In 1962, he was jailed and sentenced to five years in prison.

In 1963, the imprisoned Mandela and several other men were tried for sabotage, treason and violent conspiracy in the celebrated Rivonia Trial, names after a fashionable suburb of Johannesburg, where raiding police had discovered quantities of arms and equipment at the headquarters of the underground *Umkhonto we Sizwe* ("Spear of the Nation," the ANC's military wing). Mandela had been a founder of the organization. Hence, on June 12, 1964, he was sentenced to life imprisonment.

Later, the South African Government under President *F.W.de Klerk* released Mandela from prison on February 11, 1990.

On March 2, 1990 Mandela was chosen the Deputy President of the ANC (the President, Tambo, being ill), and then, eventually, he replaced Tambo as the President in July 1991. Mandela and De Klerk worked to end apartheid and bring about a peaceful transition to a non-racial democracy in South Africa. In 1993, they were awarded the *Nobel Prize for Peace* for their efforts.

In April 1994, South Africa held its first all-race elections, which were won by Mandela and the ANC. As President, he established the Truth and Reconciliation Commission (TRC), which investigated all the human rights violation under apartheid, and introduced housing, education and economic development initiatives designed to improve the living standards of the country's black population. In 1997, Mandela resigned from his post and retired from active politics.

from ***Nobel Peace prize Winners***
by ***Vikas khatri***

A Holiday amidst the clouds

Kodaikanal

Literally, Kodaikanal means 'Gift of the Forest'

Nearly two centuries ago, Lieutenant Ward was the first Government official to set foot in Kodaikanal. The only people who had lived there centuries earlier were tribes such as the *Paliyars*.

Kodaikanal Lake is must-see for all tourists. It provides hours of pleasure and entertainment to people of all age groups. The lake is 45 hectares in expanse.

Bryant's Park is located on the eastern side of the lake and is over 20 acres in extent. The Park grows over 740 varieties of roses! There is also an orchid green house where these exotic flowers are grown. Bryant's Park comes alive in May each year, when the Annual Flower Show is held.

Berijam Lake is situated about 21 kms away from Kodaikanal Lake and is a favourite picnic spot. Those who get the permission from the District Forest Officer, Kodaikanal will be allowed to enter Berijam Lake.

Berijam Lake View gives a panoramic view of the Lake and is located before the lake. This is 19 kms from the Kodaikanal lake.

The Solar Physical Observatory is situated at the highest point in Kodaikanal, at a height of 2,343 metres.

Coaker's Walk runs alongside the southern side of Kodaikanal and you can have an enchanting view of the valley below.

Visitors can have a panoramic view of the valley and nearby towns from the Telescope House at Coaker's Walk. A nominal entrance fee is collected at the Telescope House.

Silver Cascade Falls is located about 8 kms from Kodaikanal Lake. The excess water from Kodai Lake surges down in the form of a roaring 180 feet high water fall.

Shenbaganur Museum has an impressive collection of ancient archaeological finds. There are also amazing specimens of butterflies and stuffed birds. In addition, the Museum houses an orchidarium where over 300 varieties of orchid are to be found.

The Kurinji Andavar Temple is home to Lord Murugan or Karthikeya. 'Kurinji' is also a rare species of flower which blooms here once every 12 years.

Chettiar Park is neat little park located in the north – east corner of the town, on the way to Kurinji Andavar temple.

Silent Valley View is located near the Pillar Rock-Berijam lake road, this place gives a thrilling view of the Silent Valley. Parents must keep an observant eye on children – the view here is steep and dangerous.

Pillar Rocks are a set of three rocks which stand 122 metres high. Pillar Rocks are located about 7 kms from the Kodaikanal Lake.

Fairy Falls is yet another picnic spot, located about 5 kms away from Kodaikanal Lake. There is a sheer white wall of water which cascades down, producing a magical sight.

Golf Club situated at a height of 6,000 feet, this 18-hole par-66 course is spread over a hundred plus acres.

Green Valley View is located a little over 5 kms from Kodaikanal Lake and close to the

Golf Club. From here, you can get a magnificent view of the Vaigai Dam below.

Moier Point is 3 kms from the Pillar Rock-Berijam Lake Road and there is a lovely view of the valley.

Palani, located about 64 kms from Kodaikanal, is one of the six abodes of Lord Murugan (Karthikeya). The presiding deity of the temple is Lord *Dhandayuthapani*.

Kukkal Caves is a site inhabited by the earliest known tribes who lived here – the Paliyars, the caves are located about 40 kms from Kodaikanal.

Dolmen Circle is located about 18 kms away from Kodaikanal Lake. This is said to be the site of ancient settlements.

Thalaiyar Falls is also known as the Rat Tail Falls. At 975 feet in height, this is one of the highest water falls in the world!

Summer Festival is celebrated in May every year. This festival is celebrated for one month. The Boat pageant and the Flower show are also held during the Summer Festival and are a major attraction for tourists.

Salette Matha Festival is celebrated on August 15th every year.

Cycling: Cycles are available for men, women and children to hire by the hour. Most of these cycle-hirers can be found around the lake.

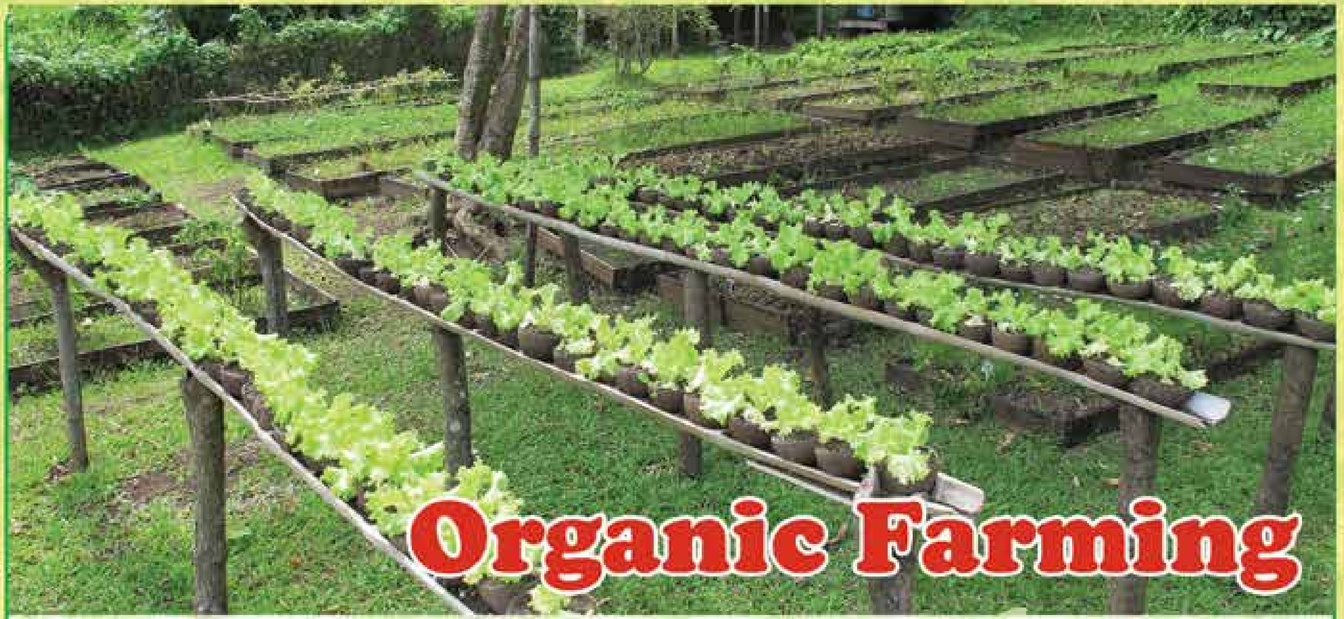
Horse ride: You will see several bored-looking ponies and horses as they patiently await their customers. Usually, exuberant children and the occasional intrepid adult. Don't expect to see expert horsemenship here, though!

Boating: Boats can be hired on a half-hourly or hourly basis.

Anglers are permitted to indulge their passion.

The Tourism Department conducts several guided tours. Private tour operators also offer guided tours. You may get in touch with the Tourist Office, the Hoteliers' Association office or the numerous travel agents anywhere in the town.

Courtesy: ***Tamil Nadu Tourism Department***



Organic Farming

What is Organic Farming?

Organic farming system in India is not new and is being followed from ancient time. It is a method of farming system which primarily aimed at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by use of organic wastes (crop, animal and farm wastes, aquatic wastes) and other biological materials along with beneficial microbes (biofertilizers) to release nutrients to crops for increased sustainable production in an eco-friendly pollution free environment

The four principles of organic agriculture are as follows:

Principle of Health

Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

This principle points out that the health of individuals and communities cannot be separated from the health of ecosystems - healthy soils produce healthy crops that foster the health of animals and people.

Health is the wholeness and integrity of living systems. It is not simply the absence of illness, but the maintenance of physical, mental, social and ecological well-being. Immunity, resilience and regeneration are key characteristics of health.

The role of organic agriculture, whether in farming, processing, distribution, or consumption, is to sustain and enhance the health of ecosystems and organisms from the smallest in the soil to human beings. In particular, organic agriculture is intended to produce high quality, nutritious food that contributes to preventive health care and well-being. In view of this it should avoid the use of fertilizers, pesticides, animal drugs and food additives that may have adverse health effects.

Principle of Ecology

Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.

This principle roots organic agriculture within living ecological systems. It states that production is to be based on ecological processes, and recycling. Nourishment and well-being are achieved through the ecology

of the specific production environment. For example, in the case of crops this is the living soil; for animals it is the farm ecosystem; for fish and marine organisms, the aquatic environment.

Organic farming, pastoral and wild harvest systems should fit the cycles and ecological balances in nature. These cycles are universal but their operation is site-specific. Organic management must be adapted to local conditions, ecology, culture and scale. Inputs should be reduced by reuse, recycling and efficient management of materials and energy in order to maintain and improve environmental quality and conserve resources.

Organic agriculture should attain ecological balance through the design of farming systems, establishment of habitats and maintenance of genetic and agricultural diversity. Those who produce, process, trade, or consume organic products should protect and benefit the common environment including landscapes, climate, habitats, biodiversity, air and water.

Principle of Fairness

Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.

Fairness is characterized by equity, respect, justice and stewardship of the shared world, both among people and in their relations to other living beings.

This principle emphasizes that those involved in organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties - farmers, workers, processors, distributors, traders and consumers. Organic agriculture should provide everyone involved with a good quality of life, and contribute to food sovereignty and reduction of poverty. It aims to produce a sufficient supply of good quality food and other products.

This principle insists that animals should be provided with the conditions and opportunities of life that accord with their physiology, natural behavior and well-being.

Natural and environmental resources that are used for production and consumption should be managed in a way that is socially and ecologically just and should be held in trust for future generations. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.

Principle of Care

Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Organic agriculture is a living and dynamic system that responds to internal and external demands and conditions. Practitioners of organic agriculture can enhance efficiency and increase productivity, but this should not be at the risk of jeopardizing health and well-being. Consequently, new technologies need to be assessed and existing methods reviewed. Given the incomplete understanding of ecosystems and agriculture, care must be taken.

This principle states that precaution and responsibility are the key concerns in management, development and technology choices in organic agriculture. Science is necessary to ensure that organic agriculture is healthy, safe and ecologically sound. However, scientific knowledge alone is not sufficient. Practical experience, accumulated wisdom and traditional and indigenous knowledge offer valid solutions, tested by time. Organic agriculture should prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones, such as genetic engineering. Decisions should reflect the values and needs of all who might be affected, through transparent and participatory processes.

Need of Organic Farming

With the increase in population our compulsion would be not only to stabilize agricultural production but to increase it further in sustainable manner. The scientists have realized that the 'Green Revolution' with high input use has reached a plateau and is now sustained with diminishing return of falling dividends. Thus, a natural balance needs to be maintained at all cost for existence of life and property. The obvious choice for that would be more relevant in the present era, when these agrochemicals which are produced from fossil fuel and are not renewable and are diminishing in availability. It may also cost heavily on our foreign exchange in future.

Courtesy : **TNAU Agritech portal**

Who was the first man in Space

The first cosmonaut was the Russian, Yuri Gagarin, who made the first-ever manned spaceflight on 12 April 1961. On the way back down to Earth, Gagarin was ejected from his capsule at a height of 7,000 m (23,000 ft) and landed by parachute.

The first manned spaceflight lasted less than two hours from launch to landing. Since that time, people have travelled into space in a variety of different spacecraft. While the first manned spacecraft was just big enough to fit one person inside, later spacecraft could fly three people around the world or take them all the way to the Moon and back. Until 2003, Russia and the United States were the only countries with a manned space programme, but in that year China launched its first manned space mission. Shenzhou-carried Yang Liwei into space on 15 October. He returned home after orbiting Earth 14 times.

Value Education

Concept of Human Value

When the society starts to respect an individual the individual starts to respect the society. He starts to feel dedicated and devoted to the well being of the society. He makes himself ready to do all possible good deeds to the society. This magical effect because he feels recognized respected. His achievements become much larger. He ensures that he gets the same respect forever.

When the society has recognized a quality in a person, it is willing to do all that is good to that individual. Its respect for that individual is spontaneous. It is eager to listen to each of his words and also eager to execute each of his request.

Good values to be followed by individuals

The following are the values to be cultivated by an individual;

➢ **Personal values related to self:**

An individual's quality is very personalized one. It has an immediate bearing on that individual more than on others, like the unique and generalized character of an individual.

➢ **Social values related to society**

An individual's attitude towards the society is reflected in his social. When these values are based on goodness of the society, it contributes his equally measureo him. But when his attitude bad, the society reciprocates in a similar fashion.

➢ **Cultural values related to culture**

Every individual is member genealogically to a community or religion. Which community or religion has its own cultural definitions. An individual is expected to follow these cultural values. When he starts to shun these cultural values, community religion starts to ignore him.

➢ **Institutional values related to organisation**

An individual becomes a member or an associate of institutions by way of education, services, profession and by individual will. At all these places he is expected to abide by a set of rules and regulations. The individual values

are looked upon by all these institutions. Those acceptable values ensure smooth relationship. Any and acceptable values are exhibited result in conflict thereby causing a situation to denounce his membership or association.

- **Nationalistic values related to country**

Any individual in a country is a proud and honoured citizen of the country. This is acquired by birth. He carries the national pride with him every time. Any action by a Citizen which causes a negative impact on the country will draw immediate hatered of him. Similarly an action done by a citizen to save the country and its pride and honoured will get immediate appreciation and recognition from the society.

- **Scientific values related to development**

Every individual is expected to temper all his actions scientifically and such actions should in no way cause damage to the society. Any damages caused will attract hatred and isolation. People in the scientific and engineering services should ensure that all contributions are aimed at constructive and positive developments.

- **Moral Values related goodness**

We should remember some of the greatest personalities like the Mahatma, Swami Ramakrishna, Swami Vivekananda, Vallabai Patel, Lokmanya Tilak, Tagore, Subramaniya Bharathi, Netaji Subash Chandra Bose, Bankim Chandra Chatterjee, V.O.Chidambaram Pillai and many others of yester years and people like Dr. Radhakrishna, Rajagopalachari (Rajaji), Dr.A.P.J.Abdul Kalam, Medhapatkar and many more who have a very special place in the hearts of millions of Indians. This is because of the qualities and moral values they practiced and preached.

- **Self-introspection**

Man is an inquisitive animal. As humans we constantly seek answers for the questions like Why? Which? What? Where? When? about ourselves and about our surroundings.

He also investigates his surroundings, his fellow beings and the nature in relation to himself. In this process he tends to change his environment and the world as such to suit his requirement of living. Every man becomes highly self-centered and thereby his first priorities are for this family members, his known circle of people, his immediate society and then finally comes his country.

He begins to get a fear when there is a conflict between him and his surroundings. When his actions for satisfying certain narrow selfish desire are executed he is confronted by various conflicts and contradictions from the society and the surroundings. It is only then he does a self introspection to find what wrong did he do for such a situation. Such introspection leads him to a situation where he would like to solve the problem to reach the normal stage.

The revolt by way of the conflicts imposed by his surroundings on him makes him realize the extent of damage he had done to his surroundings. His actions and reactions to such conflicts are either to escape from such a situation or to change himself in conformity with his surroundings. Introspection made by a human being helps him to be a good citizen and an adaptable fellow being in a society.

- **Self Esteems**

Self esteem is defined as an individuals honored opinion about himself.

A person studies surroundings and his society from his point of view all the times. He makes many judgments about his surroundings. These give sufficient room for comparison and contradiction. He also identifies the shortcomings and defects in the society from his point of view. By seeing his point of view from a higher level in comparison to others, he demands for honor and respect from the society.

An individual commands respect from his fellow members and his society using the power of his authority, money and conducts. Such individual can do both good and bad to the society. Good deeds make him a more respectable person there by pushing up his self esteem to new heights. Wrong deed pulls him down in the society and he gets hated by everyone. In such a situation, his self esteem takes a beating and he may also become very violent and aggressive in holding his social image.

An individual good deeds, thoughts and valuable preaching to the society gains him a respectable position. By continuing to do such good acts, he only improves his social position of acceptance.

Some good deeds of individuals

- Avoid spitting in public places.
- Avoid smoking (of tobacco products) in public.
- Safeguarding public properties.
- Help maintain cleanliness of public conveyances like buses and trains.
- To maintain the good conditions of public places, cinemas and shopping complex.

Status of women in family and society

Women are the integral part of every developmental process. A family is defined by keeping the father as its centre because he is an earning member. But in today's family in both the urban and rural segment, a women too contribute by way of income to the economy of the family. The current family definition surroundings both the father and mother.

Women today are contributing to the National economy as they are a major work force. They have established themselves in all kinds of positions like Manager, Engineer, Doctor, Pilot, Air hostess, Ministers, Technologists, Scientist, Police and Army.

They also have a duty back at home where they are mother, sister, wife, grand daughter, daughter-in-law and a good house keeper. Because of this dual nature of work they are constantly encountered by stress frustration and poor health. It is the utmost duty of the other members of a family and the society in general to take other members of family and the society in general to take care of the women folk. The role of the women in working conditions is not a new phenomenon. In rural India the women folk were actively participating in agriculture and live stock management for ages.

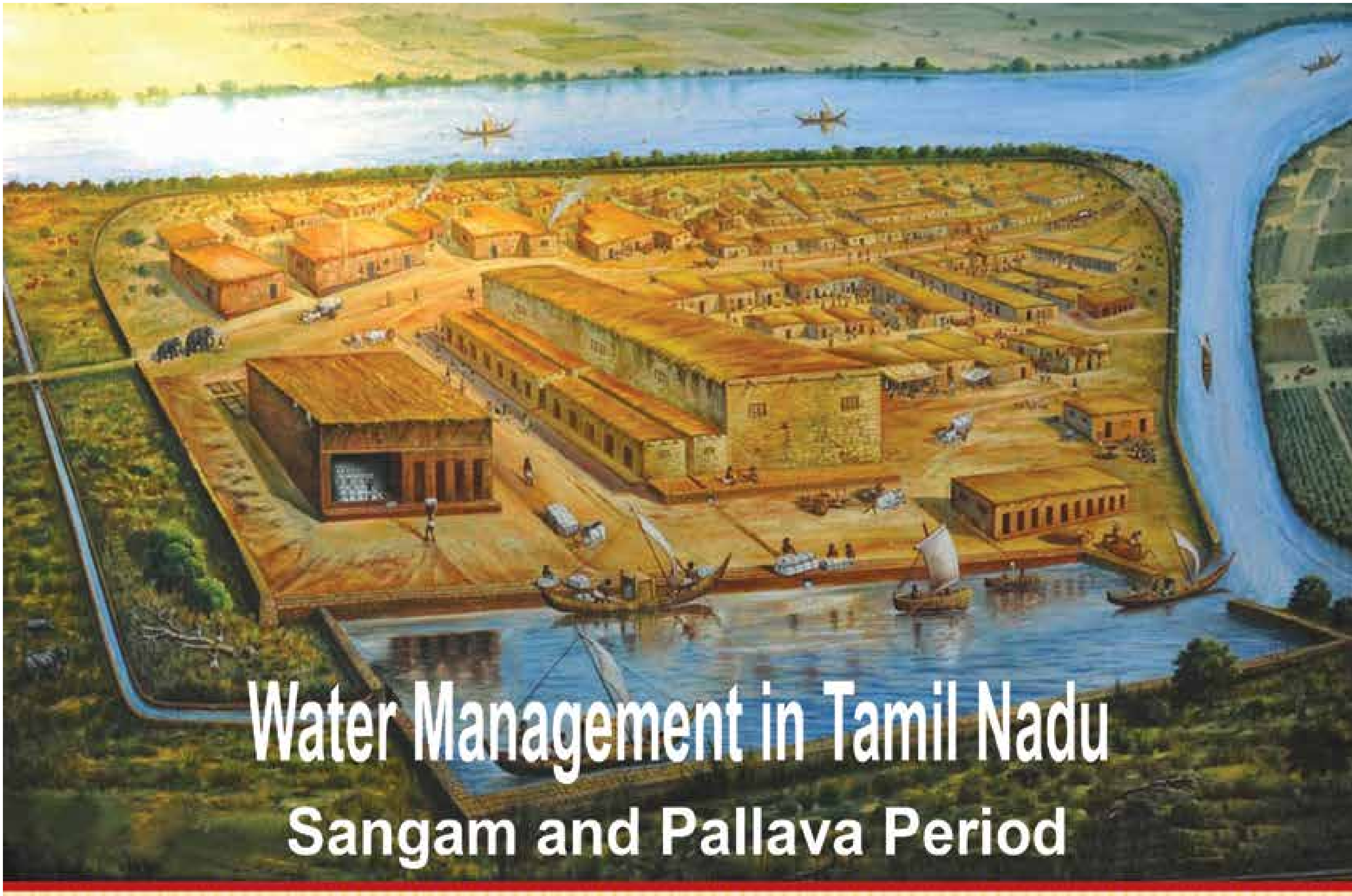
For a country like India which depends on its families for the promotion of cultural, social, economic development & women play both direct and indirect roles.

- Indian culture is very unique among all worlds culture.
- Here the definition of society is very elaborate due to its diversity.
- The definition of a family can be all the more elaborate are than that of a society.
- The family that is very simple for us is indeed a very complex one for the western world.
- A family in India is having the husband as the centre of all happenings in a family.
- The hidden binding force in the Indian families is the women in them.
- The women in a family play much diversified role. They play the role of wife, mother, doctor, housekeeper, advisor, counselor, etc.
- For a family to become successful, the mothers plays a very vital role behind the curtain.
- She keeps the interest of all family members fulfilled.
- Women who run a family very well are a self educated women.
- The women take good care of the family and so do they when it comes to society.
- Today's women are very active work force.
- The productivity of women at work place is amazing.
- Women are devoted workers.
- Women work in may varied professions.
- Their presence is seen in almost all areas of work.
- The good thing about women work force is that they save power on, stationery, fuel money, vegetables and many more.

Who invented the Printing Press?

Throughout history, books have been rare and precious things, kept in libraries of monasteries or wealthy houses. Each one had to be copied out by hand with pen and ink, so very few people had the chance to learn to read. The Chinese developed a simple system of printing in the 11th century, but it was only in about 1450 that a German named Johannes Gutenberg built the first true printing press.

Using movable metal type, Gutenberg was able to make exact copies of books very cheaply. The first books he printed were the Bible and other religious works. Soon other printers started, and by 1500 they were producing many different sorts of literature, including poems and stories. For the first time, books were available to everyone.



Water Management in Tamil Nadu

Sangam and Pallava Period

Management is an administrative machinery applied for skilful handling of an organization, having effective control over a team of employees to achieve the desired amount of result. Administering of a team of workers is a peculiar artistic talent.

As agriculture is the most important and necessary occupation for the livelihood of man, an efficient water management is necessary for a better cultivation and increased food production. When ancient man began to cultivate the irrigative types of food crops, he began to find out the ways and means to store up water in tanks and reservoirs from the near by rivers, so that he could irrigate the interior fields during dry seasons also. The water thus stored up had to be distributed among the fields and gradually the principles of supplying water for irrigation were evolved.

Principles of Water – Distribution

We have numerous references in Sangam literature showing that the ancient Tamils had well-defined principles in irrigation and agriculture. The basic requisites of a good management are well defined in Thirukkural. The importance of organisational structure, actuating, leadership, planning and decision making are the five-fold requisites for an effective management that are stressed by Valluvar in Thirukkural. These are also the requisite principles needed in water management for improving the quality and increasing the quantity of agricultural products.

The distribution of water for irrigating the fields from the rivers, canals and tanks is more important for a regulated system of cultivation. It is the duty of the managing authorities of water distribution to see that no water is wasted while irrigating the fields and at the same time every field gets proper supply of water for its cultivation. Hence, proper and regulated supply of water is the most important task of the water management authorities for a better cultivation.

Irrigation Works During Sangam Period

Realising the need for increasing food production and the drastic consequences of failure or irregularities of rainfall, the Sangam people had taken effective steps to store up the excessive water available during the rainy season and had enforced an uninterrupted irrigation system. It is understood from literature that the early Tamils had irrigated the interior fields by storing up water in tanks from the rivers.

"kulakkil vilainta kalakkol vennel"
"perungula madainir vittena"
"poygai vayirpunal poru pudavin"

Barrages were laid up across the rivers and shallow – cuts were made just above the barriers on the river bunds on either side extending through canals towards nearby tanks. These canals tailing out from the shallow – cuts were called *"vellakkal"* (inundation canal)

During rainy season, when the river was in floods, the excessive water would flow out through these inundation canals and fill up the nearby tanks. This is an efficient arrangement to utilize the excessive flow of water and thereby controlling the floods from damaging the river banks and cultivated lands. These barrages were built of stones and were called *"karchirai"*. Also these stone barrages were built up in curved shape so that they could resist maximum thrust excreted by the violent floods, as is understood from *Agananuru*.

"varuntik konda valvayk kodunchirai"
(kodu – bent, curved; chirai – barrier)

The Grand Anaicut built by Karikalan is in curved shape based on hydrostatic principles and shows the technical talents of the people of those days. As Karikalan tamed the violent – flood river kaviri, he was referred to as *"kavirinadan"* in *'Pattinappalai'*.

The following words of *Tholkappiyam* and *Maduraikkanchi* illustrate the usage of the term *"karchirai"* to represent stone barrages built across the rivers to resist the excessive flow of water;

"varuvisaip punalaik kalsirai kaduppa"
"varupunal karchirai kaduppa"

It is learnt from inscriptions that these inundation canals were also used to supply water from rivers to irrigate lands away from the rivers. Irrigation by means of these inundation canals was common in the days of Pallavas. Nandivaram - II Pallava mallan granted permission to the Brahmins of the village *'ekathira mangalam'* to dig *vellakkal* on the bank of the rivers *Uyyaru* and *Vegavati* for irrigating their lands in their village.

Methods of regulating water supply

It can be understood from literature and inscriptions that the ancient Tamils had well known the methods of regulating the supply of water for irrigation from rivers and tanks. The sluices used nowadays in dams and tanks to regulate the water supply is nothing but an improved method of device which the Ancient Tamils had in use. The terms *"vaittalay", "talaivay", "kurranvay"* and *"mukavay"* are found in literature. The terms *"vayttalai"* is used in *Silappadikaram* to refer to the sluice constructed at the bank of the river *Kaviri.*

"Kavirip pudunir kaduvaral vayttalai"

Sluices were also constructed on the bank of tanks to regulate water supply for irrigation and these sluices were called *"madagu", "madai", "tumbu" and "pudavu"*. When the inflow of water into a tank was heavy the excessive water in the tank above the permitted level was diverted out of the tank by means of a sluice called *kalingu*. In Kavirippoompattinam at *vanari*, a brick inlet channel with sluice gate was excavated. The structure of this sluice shows how carefully the channels had been constructed with provisions of sluices to control and regulate the flow of water.

Water Management

In ancient Tamil Nadu, the responsibility of water management was under the village sabhas. The village authorities employed watchmen and supervisors to look after the banks of the tanks and rivers, from breaching and leaking and also to regulate the water distribution for irrigation.

During rainy season, these supervisors would watch over the banks of rivers and tanks day and night and any breach or leakage found would immediately be announced to the public.

"siru kottup perunkulam kavalan"
"vai chirai yudaittadai vaiyai vaiyait
tirai chirai yudaittanru karchirai
yuraikenum
urai chiraip paraiyela"
(Parai -drum)

Hearing that announcement, the villagers rushed to the spot and set right the breaches by piling out haystacks and sand-bags, and raising up the barriers.

"palasal padhappar pariya vellattuch
Chiraiko pusalir puhanra vayam"
(padhappar – sand barrier*)*

Strict rules and regulations had been enforced with regard to supply of water for irrigation and different taxes were collected to meet the expenses of water management.

Rules and Regulations

Strict administrative control was exercised during the Pallava period on water distributions.

i) If the whole village wanted to get water directly from the main canals or rivers, they had to get the approval from the king. But the doners were permitted in inundate channels from the rivers.

ii) Anybody taking out water illegally from the river channels by any means shall pay a fine to the king.

iii) There were well–defined regulations defining that from which rivers or canals every village should get water for its irrigations and from which tank and through which sluices every field should get water for irrigation.

iv) Anybody violating these rules would be legally punished and would be deprived of his right of burning lamps in temples.

v) The authorities had the rights of charging the supplying canals to the field for administrative purposes and those violating the transference orders would be fined and the fine was to be credited to the tank-fund.

If the people of a village wanted to draw water to their tanks through channels passing through some other village, they should get permission from that village. Any dispute between the two villages that arose in getting into such an agreement, and disputes that arose when the villagers inundate the channels passing through their village had to be brought before the local authorities to settle down.

From these records, it can be understood that the extent of the fields to be irrigated from a tank was designed according to the capacity of that tank and that transference of fields for irrigations from one tank to another was done as and when needed.

Maintenance works of Irrigation

The maintenance works of irrigation include both precaution and preservation. It is learnt from inscriptions that ancient people of all ranks and file had done notable services towards maintenance or irrigation works. The *"Eri variyapperumakkal"* were dealing with both irrigation and maintenance works. Endowment boards had also been formed under the supervision of "Erivariyam" to look after the supervision and repair works of the reservoirs.

During rainy seasons, whenever the rivers were in heavy floods, the services of public charities were called in, to take immediate and effective steps to safeguard the tanks from any damage.

Epigraphical references show that the services of the temple charities had been very great a times of emergencies needs. They had undertaken the task, independently and carried out it successfully. For instance, when the tank in *Arikesari mangalam* was abandoned due to want of fund, the local temple underlook the work of repairing the breaches in the bund and raised it and renamed the tank as *Parameswarappereri.* More over the temple authorities had also helped the villagers in renovating the tanks by selling a portion of the temple land to meet the cost.

Private individuals had also taken active part in carrying out such charitable deeds. There are also references showing that the village people themselves had donated liberally in the form of land and money for carrying out the repairing works of the tanks in their villages. The villagers of *Irunchonattu Alangudi* had donated lands to repair the sluices in the tanks of their village.

During the reign of the Pallava king *Nandhivarman*, one *Talavendan* had donated 20 kalanju of gold to the village *sabha* for such repairing works. The expenses of raising the tank-bund of *vairamega tataka* were met-with out of the fund donated by an individual *Taniputtadiga*.

Another man by name *Tirukkalukkunram* donated 100 kalanju of gold and 208 kadi of paddy during the period of *Kampavaraman* for building the bund of the same tank with sand, and the village sabha had granted many tax-reliefs to the donors.

We can understand from these references how the people of ancient Tamil Nadu were anxious to donate liberally for public cause and such public services were treated as charitable deeds. Also these services were encouraged by the village sabhas by granting them tax-relief.

Repair and Renovation works

It is known from inscriptions that in most of the tanks, the silt was removed twice a year and the sediments were deposited on the bund to strengthen it. In large tanks which did not dry out, boats were used to carry out the silt from the centre of the tank to the bund. There are references showing that the silting works of tanks were assigned to private bodies on agreements and that they were paid annually for doing such works. In 768 A.D. during the rule of *Nandivarma Pallava malla* - II an agreement was made by the (village committee) *Gana of Payinur* to remove the silt annually from the tank of the village for the interest on 6,400 kadi of paddy received from *Ulakkuni vaniyan nagan*, a resident of Mamallapuram. There is also reference of the village sabha accepting the provision in the form of endowments made by private individuals for removing silt in the

repairing works of the tanks in their villages.

Funds for Maintenance Works

It is understood from inscriptions that funds required for the repairing and maintenance works of tanks had been obtained mainly from taxes. Funds offered or collected for this purpose were in the form of money, gold, paddy, cultivable land, paddy fields and also in the form of manual labour. Gifts of gold and money were let on loan or lease to the public and the interest or money got out of it was utilized for these works.

tank. In the 9th year of *Dantivarman* (805 A.D.) a private endowment was accepted by the Uttaramerur sabha for dreadging the *Vairamega tataka*.

In another instance, the village committee members granted a land for removing silt from the tank *velleri* at *Tiruvippirambedu*. The produce of this land was utilized to meet the charges for digging pitts in the tank and depositing the silt on the tank bund. In the 9th year of Pallava king *Dantippottarasar*, an endowment was registered by a private individual for the removal of silt in the *Vairamega tataka*. An inscription of the Ganga pallava king *Dantivikravarman* is found in the tank at *Gudimallam* near *Renigunta* junction recording a gift of land to remove the silt from another tank in the village.

Thus it is clear that the people of the villages in ancient Tamil Nadu had donated liberally in the form of land and money for carrying out the

Revenue from tax

In order to maintain the water supply for irrigation, several taxes were collected from the public. The tax *"Nirnilaippattam"* was collected for irrigating the fields from the tanks. *"Olugunirpattam"* was the tax collected for direct irrigation from the rivers. Water was also be sole at a fixed price and the revenue thus derived was termed as *'Nirvilai', 'Nirkkuli'* and *'Nirkkanam'*. It is known that boat transport was in practice in those days to cross through lakes and rivers and tax was collected from the boatman and the tax was known as *pattigaikanam*. Tax collected for using water from canals and channels for irrigation was called *"vaykkal pattam"*. Tax was also collected from fisherman for fishing out in the tanks

and lakes. The villages on the Kaviri banks had to take special attention for keeping the river bunds in good condition and for averting inundation during floods. Such villages had to levy a special cess called *"Kaviri-k-karai viniyogam"*.

The public had also paid a special quantity of paddy as *erivari or erikadi* towards maintenance expenditure. An inscription of *Kampavarman* (9th A.D.) states that the people of the village *Kilputtur*, paid *erikadi* at the rate of one *kadi* of paddy per paddy field of one *patti*.

There were strict principles in the collection of taxes. The land of any tax-defaulter would be taken off by the village committee for the benefit of the tank for a specified period of 3 years within which period the land owner should remit his dues and get back his land, failing which his land would be sold away and the amount would be accounted for the upkeep of the tank.

Besides these taxes as already mentioned, endowments were also accepted from the public to carry out the repairing works of the tanks, for which the donors were granted some tax reliefs and their act of donation was treated as a charitable deed.

Conclusion

It can be inferred from the strict rules and regulations with regard to supply of water for irrigation that there must have been dispute between villages with regard to carrying-out water through channels passing through one village to another. Individuals also had violated the rules by inundating the canals to irrigate

their fields. Also there had been defaulters of tax and hence strict rules and penalties had been enforced for defaulters. Donating of funds for public services had been treated as charitable deeds.

The basic principles of irrigations through rivers, canals and tanks, prevailing in ancient Tamil Nadu were somewhat similar to those which are in practice now - a - days. But there is much difference and advancement with regard to well-irrigation. Water-lifting from wells is made much easier by the introduction of pumping motors. Electricity plays an important role in modern agricultural occupation. Wells and bore-wells are dug by means of modern equipment, construction of dams and tank bunds are done by more advanced methods and the sluices are more modernized. More advanced method is used in the process of watering also. But we may proud of the knowledge of the ancient Tamils who had followed a principled regulated irrigation system with a well organized management system.

Source: ***Heritage of the Tamils***
Science & Technology
International Institute of Tamil Studies

Heat Wave

"The condition where maximum temperature at a grid point is 3˚C or more than the normal temperature, consecutively for 3 days or more."

World Meteorological Organization defines a heat wave as five or more consecutive days during which the daily maximum temperature exceeds the average maximum temperature by five degrees Celsius.

Heat-wave early warnings are designed to reduce the avoidable human health consequences from heat-waves through timely notification of prevention measures to vulnerable populations. Heat wave is considered only after maximum temperature of a station reaches at least 40° C for plains and at least 30° C for hilly regions. India Meteorological Department issues forecasting on the level of Heat waves likely to prevail in the regions for 5 days at a time.

The State of Tamil Nadu, which is located in the vulnerable part of the Indian Peninsula, is subject to climate and geological related disasters viz., cyclone, flood, earthquakes, tsunami and drought to varying degrees. In the recent years, due to rising temperatures during the summer / pre-monsoon months several places are subject to 'Heat wave' conditions.

India Meteorological Department (IMD) criteria for Heat Wave and Severe Heat Wave

Heat wave is considered only after maximum temperature of a station reaches at least 40° C or more for plains, at least 30° C or more for hilly regions and 37° C or more in sea shore areas.

Early Warning and Indicators of Heat-wave

In response to the devastating mortality and morbidity of recent heat-wave events, many countries have introduced heat-wave early warning systems. Heat-wave early warnings are designed to reduce the avoidable human health consequences from heat-waves through timely notification of prevention measures to vulnerable populations. India Meteorological Department has developed criteria for heat waves based on the temperature at stations and is issuing weather warning forecasting on the level of Heat waves likely to prevail in the regions for 5 days at a time. The Regional Meteorological Centre (RMC) in Chennai has been publishing weather projections for Tamil Nadu on its website, keeping people informed with regular updates of projections of average temperatures for a week ahead for every District in the State. Such information

can provide timely warning to the public to take adequate precautions to prevent being affected by the heat wave and thus mitigate the disaster.

High Risk Groups

- ❖ Children, Pregnant women & Senior citizens
- ❖ Police personnel/security staff
- ❖ Industrial workers working at High Temparatures
- ❖ Street hawkers/Salesmen
- ❖ Riksha pullers/auto drivers/Travellers/bus drivers
- ❖ Coolies/Slum residents/Beggars/Homeless
- ❖ Chronic sick/indoor cases
- ❖ Patients on drug treatment
- ❖ Addicts (Alcohol, drugs etc)

Preparedness measures

- ❖ Ensure drinking water supply to all habitations.
- ❖ Local bodies shall identify the areas to provide shelters and drinking water during heat alert period such as bus depots/stops, markets, railway stations, pilgrimage, tourist, industrial areas etc.
- ❖ District Administration have to prioritize maintaining power to critical facilities such as hospitals and UHCs.
- ❖ Checking of inventories of medical supplies including IV fluids, cooling packs or ice, ORS powder in PHCs, UHCs, and 108 emergency ambulances.
- ❖ Adequate arrangements for treatment of heat stroke patients round the clock.
- ❖ Display of prevention measures to overcome HEAT WAVES.

- ❖ Ensure the services of 108 / 104 Emergency Service with adequate supply of IV fluids.
- ❖ Establish mobile Health teams to cover major bus stands / Terminals, pilgrimage, tourist centres and other public places.
- ❖ Keep open the parks in afternoon and for a longer duration during evenings.
- ❖ Labour Department to enforce better working conditions for workers such as provision of sheds, safe drinking water, bathing facilities etc., as per the Labour Act.
- ❖ Fire and Rescue Services Department has to ensure the readiness of vehicles and fire fighting equipment to face any emergency.
- ❖ Police personnel on duty in the open, to be educated on precautionary measures to be taken during heat wave.
- ❖ Shelters for traffic police may be provided, wherever feasible.
- ❖ Children in anganwadis and schools may be advised to ensure that they are not exposed in the sun.

DO's

- ✶ Listen to Radio, watch TV, read Newspaper for local weather forecast to know if a heat wave is on the way.

- Drink sufficient water and as often as possible, even if not thirsty.
- Wear light weight, light-coloured, loose, and porous cotton clothes. Use protective goggles, umbrella/hat, shoes or chappals while going out in sun.
- While travelling, carry water with you.
- If you work outside, use a hat or an umbrella and also use a damp cloth on your head, neck, face and limbs.
- Use ORS, coconut water, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc., which help to re-hydrate the body.
- Recognize the signs of heat stroke, heat rash or heat cramps such as weakness, dizziness, headache, nausea, sweating and seizures. If you feel faint or ill, see a doctor immediately.
- Urine in darker yellow or orangish yellow indicates severe dehydration.
- Keep animals in shade and give them plenty of water to drink.
- Keep your home cool, use curtains, shutters or sunshade and open windows at night.
- Use fans, damp clothing and take bath in cold water frequently.
- Provide cool drinking water near work place.
- Caution workers to avoid direct sunlight.
- Schedule strenuous jobs to cooler times of the day.
- Increasing the frequency and length of rest breaks for outdoor activities.
- Pregnant workers and workers with a medical condition should be given additional attention.

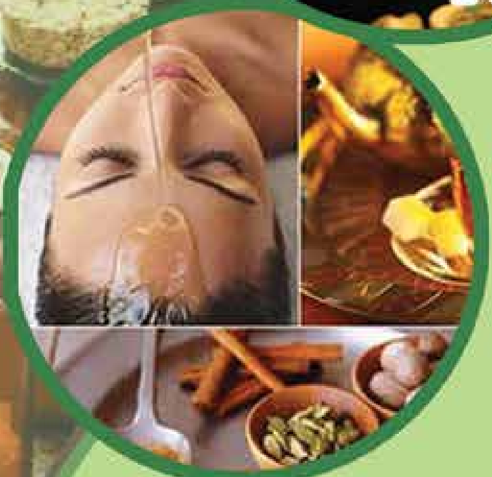
DON'Ts:

- Do not leave children or pets in parked vehicles.
- Avoid going out in the sun, especially between 12.00 noon and 3.00 p.m.
- Avoid wearing dark, heavy or tight clothing.
- Avoid strenuous activities when the outside temperature is high. Avoid working outside between 12.00 noon and 3.00 p.m.
- Avoid cooking during peak hours. Open doors and windows to ventilate cooking area adequately.
- Avoid alcohol, tea, coffee and carbonated soft drinks, which dehydrates the body.
- Avoid high-protein food and do not eat stale food.

EMERGENCY TREATMENT

- If Heat Stroke is suspected, call 108 immediately. While waiting for the ambulance.
- Make the victim lie down
- Take the person's temperature.
- If possible move the affected person to somewhere cooler / shaded area.
- Apply cold compresses
- Elevate feet
- Give a cool shower by sprinkling with water or Wrapping in a damp sheet and using a fan to create an air circulation.
- Encourage to drink fluids, if they are conscious.
- Do not give aspirin or paracetamol.

Courtesy ***: Tamil Nadu State Disaster Management Authority (TNSDMA)***



Siddha system for healthy living

Medicines for common diseases

Pre-mature grey hair and giddiness *(Elanarai & Pitta Kirukiruppu)*

Take a handful of the leaves of Curry Leaf *(Karriveppilai)* and grind it to make fine paste and make *(Vadai)* cakes.

Take half a kg. of coconut oil in a vessel *(Vanali)* and keep it on an oven and boil it. Fry the above cake in the oil so as to ensure that the essence of the cakes gets into the oil.

The vessel may be removed with the oil. Put one gram of the powder of Borneo Camphor *(Pachai karpooram)* in the oil. Decant it in to an airtight bottle.

Apply this oil on the grey hair. Grey hair will turn into black in colour and giddiness will also vanish.

Hair fall of Youngsters

Take 25 ml of honey and one garlic and remove outer and inner skins.

This garlic may be ground and mixed with the honey.

This mixture may be applied on the places where the hair has fallen, for some days.

The hair would start growing after some days.

Headache *(Thalai Vali)*

Pain in the head, heaviness of the eyes, nausea and occasional vomiting are the signs and symptoms. The other symptoms are pain in the frontal and occipital regions, nausea and vomiting at times.

i) Zingiber officinals (*Sukku*) paste: for external application; this paste is ideal.

ii) Leucas aspera *(Thumbai poo)* Juice: For chronic and severe headache, two drops of *Thumbai poo* juice administered as nasal drops for relief comfort.

iii) For running nose, head-ache, boil vitex nigunku *(Nochi Leaves)* in water and place a red-hot brick on it. The vapour is inhaled by covering the head with a blanket.

iv) Juice of Leucas *(Thumbai flower)*: 2 drops may be instilled in nostrils which will

produce sneezing. The head-ache (due to cold) will be relieved.

v) Produce smoke by putting Carum Copicum *(Omam),* pepper *(Milagu)* and rind of the garlic *(Poondu thole)* in fire and inhale the fume for a few occasions.

vi) Grind cleaning nut *(tethan kotai)* in egg albumin and apply externally.

vii) Boil emblic myrobalam *(nellikai)* in milk and grind with some ghee. Apply this paste externally.

viii) Put a few drops of the Arabian Jasmine Flower *(Mallikai Poo)* juice into the nose and inhale.

ix) A paste made out of any of the following may be applied externally over the forehead:

a. Cinnamomum Zeylanicum *(llavangapattai)* and Zingiber officinale (*chukku)* may be ground and applied.

b. Paste made of Piper nigrum *(Milagu)*

c. Paste made of Zingiber officinale (*Inji)* mixed with breast milk or cow's milk can be applied.

Hair Growth Stimulant (Hair Tonic)

Take Indian goose berry (*Nellikai)* juice 2 litres; buffalo's milk 2 litres; and gingelly oil 1 litre; boil up to oil like consistency *(thaila bagam)* and filter it. Apply to the hair daily.

For Turning Grey Hair Dark

Take the entire plant of Sphaeranthus Hirtus or Amaranthoides (*Siva Karanthai*) before flowering and Eclipta Erectra *(Kaiyanthagarai)* in equal parts - dry – powder and mix together. Give two grams of this powder twice a day in honey. Administer for 48 days.

Externally apply a paste made of fresh and green leaves of Senna Indica *(Nilavagai)* and low Sonia alba *(Maruthani)*.

Burning sensation of the Eyes

1. Grind lawsonia alba *(Maruthontri leaf)* and bandage it on the foot. If this is done during small pox infection, the ailment will not affect the eyes.

2. Add breast milk with castor oil and instill two drops into the eyes.

Ear Ache *(Kaathu Vali)*

1. Boil drum stick bark juice with gingelly oil and allow to cool. When tolerably warm, use as ear drops (4 drops).

2. Take yellowed leaves of Mudar *(erukkilai)* and grind with ghee, warm it and squeeze the warm juice into the ear (4 drops).

Tooth ache (*Pal Vali***)**

1. Bring a garlic and remove the skin. Add with it a pinch of pepper powder. Grind them well with a few drops of breast milk and mix it with the same milk. Boil it over an oven. Plaster this paste on the cheeks externally, where the tooth ache is persisting.

2. Take a garlic and remove the skin. Again take a little common salt. Both may be ground. Wrap it in a piece of tobacco leaf and keep it on the gum for a while.

3. Use long pepper powder with same glue for brushing or cleaning the teeth.

4. Grind fenugreek seeds (*vendayam*) with egg albumin into a fine paste (10 grams) and apply on the cheek.

5. Gargle with ginger juice mixed with honey.

6. Gargle with a decoction of drum stick root juice and mustard 100 ml (10 grams mustard).

Tooth ache and Swelling in the gum (Pal Vali – Eru Veekkam)

Take dried ginger and pepper in equal quantity. Grind it well with a few drops of cow's milk and add some milk. Collect it in a vessel. Boil it over an oven for a few minutes till it becomes a paste.

This paste may be applied externally on the sides of the mouth.

Bleeding Gum

1. Take the roots of Indian Sarasaparilla *(Nannari Ver)* and grind it with a few drops of hot water. Give this equivalent to the size of a small lime fruit to the patient to take orally.This should be taken three times in a day

2. Take fresh roots of Indian Sarasaparilla (*Nannari Ver*) and grind it well with a few drops of warm water and make a paste. Give a quantity equivalent to a small lime fruit to the patient to take in the morning, afternoon and night for cure.

Dry Cough

Keep a piece of Indian Liquorice *(Athimathuram)* and two numbers of Pepper (*milagu*) in the mouth and swallow the saliva.

Ulcer in the Intestine

Take some pieces of Turmeric *(Manjal)* and burn them to convert as ash.

Make decoction by boiling Jequitity *(Athimathuram)* in water for some minutes. Mix a small spoonful of the above Turmeric *(Manjal)* powder with a cup of the above decoction and give to the patient to take orally.

Repeat it for 3 days. He will be alright.

Stomatitis (*Vaippun*)

The signs and symptoms of the Stomatitis are:

The gums and mouth are reddish and painful. The tongue may be swollen. Foetid smell of the breath.

1. Take 3.5 grams of alum and dissolve in one litre of water. Use it as a gargle and for washing ulcers and wounds.

2. Take 30 grams bark of Ficus bengalensis (*Alampattai*) and add one litre of water and prepare decoction and gargle as often as required.

3. Leaves of Solanum nigrum (*Manathakkali elai*) and Phaseolus radiates *(Pachai payaru)* can be cooked and taken along with food.

4. Decoction of Thiriphala *(choornam)***:**

Powdered Thiriphala which contains Terminalia chebula *(kadukkai)*, Emblica officianalis *(Nellikkai)*, Terminalia belerica *(Thantrikkai)* can also be used for gargling.

Diabetes Mellitus *(Neerizhivu)*

The following signs and symptoms are seen: Increased urination and increased intake of both fluid and food, exhaustion, weight loss, elevated level of sugar in urine and blood due to insulin definciency.

i) Dried Bitter gourd (*kombu pagal)* may be finely powdered.

Dose: 4 to 6 grams with water two times a day.

ii) Dried Cassia Auriculata (*Avarai*) leaves, flowers, fruits, bark and root, each 4 grams are to be coarsely powdered and boiled with 400 ml of water and reduced to one fourth.

Dose: 30 to 60 ml twice a day.

iii) Take the following ingredients in equal parts, powder and mix them well. Steam them, dry finely and powder it.

Tinospora cordifolia (*Seethil*) 1 part.

Eclipta prostrate (*Karisalanganni*) 2 parts and

Earthworm (*Nakkupoochi podi*) 1 part.

Dose: 1 to 2 grams with ghee or honey twice a day.

Diet restriction: Avoid smoking and advised to take tamarind free diet.

iv) Dry the leaves of Gymnema sylvestre (*sirukurinjan elai*) and finely powder it.

Dose: 2 to 6 grams with water twice a day for 3 months.

Burning-Sensation in-soles

Grind henna leaves (*Marudhani)* with the juice of bottle gourd (*surakkai*) or lime juice and apply on soles.

Summer Boils (*Venir Katti***)**

Vesicular or pustular erythematous eruptions on exposed area occurring during summer seasons are the signs and symptoms.

External applications are suggested.

1. Mucilage of Aloe barbadensis (*Sottru Katrazhai*) is bandaged on the boils.

2. Make Santalum album (*Chandanam*) into a form of a paste using Tender coconut water (*Ilaneer*) and apply.

3. Boil Nerium indicum (*Vellai arali mottu*), camphor (*Karpuram*) and Nigella sativa (*Karunjeeragam*) in coconut oil, filter and apply.

4. Apply water of Kernel Borassus flabellifer (*Panai nungu*) on the boils.

Tamilarasu

Publication of Information & Public Relations Department

'Now, register online for Tamilarasu magazine'

Tamil Nadu Government's monthly magazine

The Information and Public Relations Department of the Tamil Nadu Government is bringing out the Tamilarasu monthly magazine from 1970. The Magazine, which is being brought out both in Tamil and English, features schemes implemented by the Tamil Nadu Government, events connected with the Hon'ble Chief Minister of Tamil Nadu, articles on the awareness programmes of the Government and the different Government functions held in the State, relevant short stories and information regarding health and sports.

Online Registration

The magazine commands good readership among the general public, Government offices, readers visiting Government libraries and members of political parties. Students preparing for the examinations conducted by the Tamil Nadu Public Service Commission also collect the magazine in person from the Tamilarasu office.

To meet the growing demand for the magazine and to facilitate the renewal of subscriptions, a new website (www.tamilarasu.org) has been created and made functional. Subscription rates are mentioned in the website.

New subscribers can fill up the form in the internet to enroll themselves as subscribers of the magazine. Details regarding the issue they want, the delivery address, e-mail address, mobile phone number, the number of copies needed and the period of subscription should be uploaded. The subscription amount can be paid online through credit, debit cards or through Net-banking. Subscribers can download the online receipt and take a copy of it. The magazine will be dispatched by post to those who have paid the subscriptions.

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